

## MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

**Senility Transplants.**—Immediately after maturation, frog's eggs pass into a resting stage, awaiting fertilization. If fertilization is too long delayed, degenerations set in and atypical embryos or monstrosities develop. These senitized monstrosities are characterized by an overabundance of melanin in the internal tissues, by low-grade cellular differentiation, and a tendency to tumor formation. The monstrosities usually die within two weeks.

To keep these "senile" tissues alive, Doctor Witschi of the Zoölogical Laboratory, University of Iowa,\* transplanted fragments into normal tadpoles. Some of these grafts took on aggressive invasive characteristics, pigmented cells spreading throughout the surrounding normal tissues.

The main bulk of one such graft was retransplanted into a second frog. Sixty days later the abdomen of this frog was found to contain a large invasive tumor mass, partially destroying the urinary bladder, with numerous secondary nodules in the liver, histologically identical with melanotic sarcomata in man.

Doctor Witschi has apparently opened up a very important new method of experimentation in experimental cytology, particularly suggestive in its bearing on the etiology of malignant disease.

W. H. MANWARING, Stanford University.

**Treatment of Epidermophytosis.**—Epidermophytosis has, during the past few months, assumed the dignity of an epidemic. While the condition is not a fatal one, in its selective involvement of the feet and toes it is nevertheless distressing and painful, and often one causing economic loss because of its impairment to locomotion.

Epidermophytosis inguinale, the causative fungus, is demonstrable in at least 50 per cent of cases, provided proper technique is used and ample time devoted to the search.

The four common varieties are: (1) the vesicular; (2) the scaling; (3) the macular; (4) the macerated. This report is presented with the sole hope of adding an efficient therapy to the present unsatisfactory mode of attack. Beckman,<sup>1</sup> under the caption of "Therapy," states: "Treatment of epidermophytosis has never been entirely satisfactory, some cases resisting any and all sorts of measures while others clear up very quickly under the simplest of treatment."

This report is based on a series of twenty-five cases of typical "athletic foot," including three of the four varieties previously mentioned, the macerated representing fifteen of the twenty-five. Only the macular type is absent.

The male is affected four to one, although wide fluctuation here is probable, depending upon the relative athletic activity of the sexes in different parts of the country. The youngest patient treated was a boy nine years of age, the oldest a woman of seventy-two. Epidermophytosis knows no class distinction. All public places—swimming pools, country clubs, athletic clubs, gymnasiums, etc.—have been found to harbor the causative fungus.

The effectiveness of the treatment of these twenty-five cases has been compared with a previous series of the same number treated prior to the use of the treatment to be detailed. In the former series there were none without one relapse and some with as many as three, the time involved being from three weeks to three months. In the present series no relapses have occurred during the six months to a year following treatment. The time necessitated for treatment has been reduced 50 to 75 per cent without any economic loss. It was difficult to persuade one patient (who resided in a distant city) to return for a fifth treatment, so great was the relief and so rapid the elimination of the infection.

The attack is simple but effective. Rigid adherence without deviation is the price of success. Scholtz<sup>2</sup> keynotes the essence of this: "One of the common causes of therapeutic failure is inadequate attention to detail." The truth of this statement cannot be overemphasized and needs frequent repetition.

The four essentials to success in treatment consist of:

1. Trimming of all nails.
2. Interdiction of water to the infected parts while under treatment.
3. Use of white cotton stockings.
4. Daily treatment with short-wave antiseptic water-cooled actinic ray.

The use of water is denied on account of irritation of the open lesions and the potentiality of its carrying the infection to other parts. Trimming the nail is absolutely necessary and essential due to the fact that beneath these appendages the trichophyton is often harbored and establishes a reinfection; likewise it is less difficult to effect

\*Witschi, E.: Experimentally Produced Neoplasma in the Frog, *Proc. Soc. Exper. Biol. and Med.*, 27:475 (March), 1930.

<sup>1</sup> Beckman: Treatment in General Practice—Epidermophytosis, p. 674, 1930.

<sup>2</sup> Scholtz: Dermatologic Therapeutics—Basic Principles and Technique, *California and West. Med.*, 33:765, No. 5 (Nov.), 1930.